Application No. 10/525,287 Docket No.: 09852/0202546-US0

Amendment dated April 17, 2009 Reply to Office Action of December 17, 2008

AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A rotation transmission member comprising:

a substantially ring-shaped rotation transmission portion; and

a supporting portion that is placed on an inner side of the rotation transmission portion and

has a substantially circular cylinder shaped through hole that is formed by an inner circumferential

surface, and that supports the rotation transmission portion, wherein

the inner circumferential surface is provided with:

a smooth ring-shaped surface that is placed adjacent to one end of the inner circumferential

surface; and

a plurality of protrusion shaped portions that, taking the ring-shaped surface as a basis,

protrude inwards in the radial direction, and extend along a portion of the length in the axial

direction of the through hole,

wherein the height of the protrusion shaped portions from the ring-shaped surface is 0.5

to 10 µm; and

wherein front end surfaces in a mess-insertion direction of the protrusion shaped portions

incline toward the rear in the press-insertion direction from the inner circumferential surface to top

ends of the protrusion shaped portions.

2. (Original): A rotation transmission member according to claim 1, wherein the protrusion shaped

portions are a plurality of convex bars that extend rectilinearly from one end of the ring-shaped

surface to an end portion of the through hole.

3

4213259 1 0202546-US0

Application No. 10/525,287

Amendment dated April 17, 2009

Reply to Office Action of December 17, 2008

3. (Original): A rotation transmission member according to claim 2, wherein the plurality of convex

Docket No.: 09852/0202546-US0

bars are placed equally in the circumferential direction of the inner circumferential surface.

4. (Original): A rotation transmission member according to claim 1, wherein the rotation

transmission portion and the supporting portion are formed integrally.

5. (Original): A rotation transmission member according to claim 4, wherein the rotation

transmission member is a sintered component that is manufactured by powder molding and

sintering.

6. (Currently Amended): A rotation transmission assembly comprising:

a rotation transmission member formed in a substantially circular plate configuration, in a

center of which there is a substantially circular cylinder shaped through hole that is formed by an

inner circumferential surface, and that comprises a rotation transmission portion located on an outer

circumferential portion of the rotation transmission member; and

an inner side member that is press-inserted into the through hole, wherein

the inner circumferential surface of the rotation transmission member is provided with:

a smooth ring-shaped surface that is placed adjacent to one end of the inner circumferential

surface; and

a plurality of protrusion shaped portions that, taking the ring-shaped surface as a basis,

protrude inwards in the radial direction, and extend along a portion of the length in the axial

direction of the through hole, and wherein

4

4213259 I 0202546-US0

Application No. 10/525,287 Docket No.: 09852/0202546-US0

Amendment dated April 17, 2009 Reply to Office Action of December 17, 2008

wherein the inner side member and the rotation transmission member mesh with each other

within the range in which the protrusion shaped portions extend, and are in surface contact with

each other within a range in which the ring-shaped surface extends

wherein the height of the protrusion shaped portions from the ring-shaped surface is 0.5

to 10 µm; and

wherein front end surfaces in a mess-insertion direction of the protrusion shaped portions

incline toward the rear in the press-insertion direction from the inner circumferential surface to top

ends of the protrusion shaped portions.

7. (Original): A rotation transmission assembly according to claim 6, wherein the protrusion shaped

portions are a plurality of convex bars that extend rectilinearly from one end of the ring-shaped

surface to an end portion of the through hole.

8. (Original): A rotation transmission assembly according to claim 7, wherein the plurality of

convex bars are placed equally in the circumferential direction of the inner circumferential surface.

9. (Original): A rotation transmission assembly according to claim 6, wherein at least one of the

rotation transmission member and the inner side member is a sintered component that is

manufactured by powder molding and sintering.

10. (Original): A rotation transmission assembly according to claim 6, wherein the rotation

transmission member is formed as a gear that has a plurality of teeth on the rotation transmission

5

4213259 1 0202546-US0

Application No. 10/525,287 Docket No.: 09852/0202546-US0

Amendment dated April 17, 2009 Reply to Office Action of December 17, 2008

portion, and the inner side member is formed as a cylindrical bearing member.

11. (Original): A gear mechanism that is provided with the rotation transmission assembly

described in claim 10.

12. (Cancelled)

13. (Withdrawn): A rotation transmission assembly comprising:

a rotation transmission member formed in a substantially circular plate configuration, in a

center of which there is a substantially circular cylinder shaped through hole that is formed by an

inner circumferential surface, and that comprises a rotation transmission portion located on an outer

circumferential portion of the rotation transmission member; and

an inner side member whose length in the axial direction is longer than the through hole, and

that is formed in a substantially circular cylinder shape and is press-inserted into the through hole,

wherein

both end portions of the inner side member protrude as protruding portions from end

portions of the inner circumferential surface of the rotation transmission member, and at least one

portion of the protruding portions is made to protrude outwards in the radial direction beyond the

diameter of the inner circumferential surface by plastic deformation, and is tightly adhered to the

end portion of the inner circumferential surface.

14. (Withdrawn): A rotation transmission assembly according to claim 13, wherein a plurality of

chamfered portions that each have a different chamfer angle are formed on an inner surface of each

6

4211259 1 0202546.1150

Application No. 10/525,287 Docket No.: 09852/0202546-US0 Amendment dated April 17, 2009

Reply to Office Action of December 17, 2008

end portion of the inner side member.

15. (Withdrawn): A rotation transmission assembly according to claim 13, wherein the inner

circumferential surface of the rotation transmission member has a plurality of convex bars that

extend over the length of the through hole, and the inner side member meshes with the plurality of

convex bars as it is deformed.

16. (Withdrawn): A rotation transmission assembly according to claim 13, wherein the rotation

transmission member is formed as a gear that has a plurality of teeth on the rotation transmission

portion, and the inner side member is formed as a bearing member.

17. (Withdrawn): A gear mechanism that is provided with the rotation transmission assembly

according to claim 16.

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Withdrawn): A rotation transmission assembly comprising:

a rotation transmission member formed in a substantially circular plate configuration, in a

center of which there is a substantially circular cylinder shaped through hole that is formed by an

inner circumferential surface and extends from a first end portion to a second end portion, and that

7

4213259 I 0202546-US0

Application No. 10/525,287 Docket No.: 09852/0202546-US0

Amendment dated April 17, 2009

Reply to Office Action of December 17, 2008

comprises a rotation transmission portion located on an outer circumferential portion of the rotation

transmission member; and

an inner side member that is press-inserted into the through hole, wherein

the inner circumferential surface of the rotation transmission member comprises:

a smooth ring-shaped surface that is placed adjacent to the first end portion; and

a plurality of convex bars that, taking the ring-shaped surface as a basis, protrude inwards in

the radial direction, and extend rectilinearly from one end of the ring-shaped surface to the second

end portion, and wherein

the inner side member and the rotation transmission member mesh with each other within

the range in which the convex bars extend, and are in surface contact with each other within a range

in which the ring-shaped surface extends, and one end portion of the inner side member protrudes as

a protruding portion from the second end portion of the inner circumferential surface, and at least

one portion of the protruding portion is made to protrude outwards in the radial direction beyond the

diameter of the inner circumferential surface by plastic deformation, and is tightly abutted against

the second end portion of the inner circumferential surface.

22. (Withdrawn): A rotation transmission assembly according to claim 21, wherein a plurality of

chamfered portions that each have a different chamfer angle are formed on an inner surface of each

end portion of the inner side member.

23. (Withdrawn): A rotation transmission assembly according to claim 21, wherein the rotation

transmission member is formed as a gear that has a plurality of teeth on the rotation transmission

4213259 | 0202546-US0

Application No. 10/525,287 Docket No.: 09852/0202546-US0

Amendment dated April 17, 2009 Reply to Office Action of December 17, 2008

portion, and the inner side member is formed as a bearing member.

 $24. \ (Withdrawn): \ A \ gear \ mechanism \ that \ is \ provided \ with \ the \ rotation \ transmission \ assembly$ 

according to claim 23.

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (New): A rotation transmission member according to claim 1, wherein a chamfered portion

is formed at the front end of the inner circumferential surface in the press-insertion direction.